

## ABSTRACT

## [PROBLEMS]

To provide a cooling system in which the efficiency of a refrigerator will not decrease in obtaining a  
5 predetermined temperature and humidity in a cooled room even when there is a change in the outside temperature and so on.

## [MEANS FOR SOLVING]

An air conditioning system comprising a dehumidifier,  
10 a compressor into which a first air is introduced, a heat exchanger into which the first air compressed by the compressor is introduced, and an expander into which the first air heat-exchanged by the heat exchanger is  
introduced and which is connected with the compressor  
15 through a connection mechanism, wherein moisture content of a dehumidifying agent in the dehumidifier is decreased by a second air heat-exchanged with the first air by the heat exchanger.